

*Area of circle and it's circumference*

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### *Theorem*

*If the area of circle is divided by the circumference of circle the answer is the same as dividing the radius by 2*

### *Proof*

*Formula of area =  $\pi r^2$*

*Formula of circumference =  $2\pi r$*

*Now divide the Area by circumference*

$$= \pi r^2 \div 2\pi r$$

$$= r/2$$

*Hence proved*

### *Uses...*

1. If we know the area of circle and we need to find its circumference then we'll do the twice of the area of

*circle and divide it by radius.*

2. If we know the circumference of circle and we need to find its area then we'll do the half of the radius and multiply it by circumference

## *Conclusion*

1. From the above theorem we can say that area of circle is the half of its radius and product of circumference
2. Circumference of the circle is the twice of the area divided by its radius